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J. S. Wade.

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BUREAU OF ENTOMOLOGY.

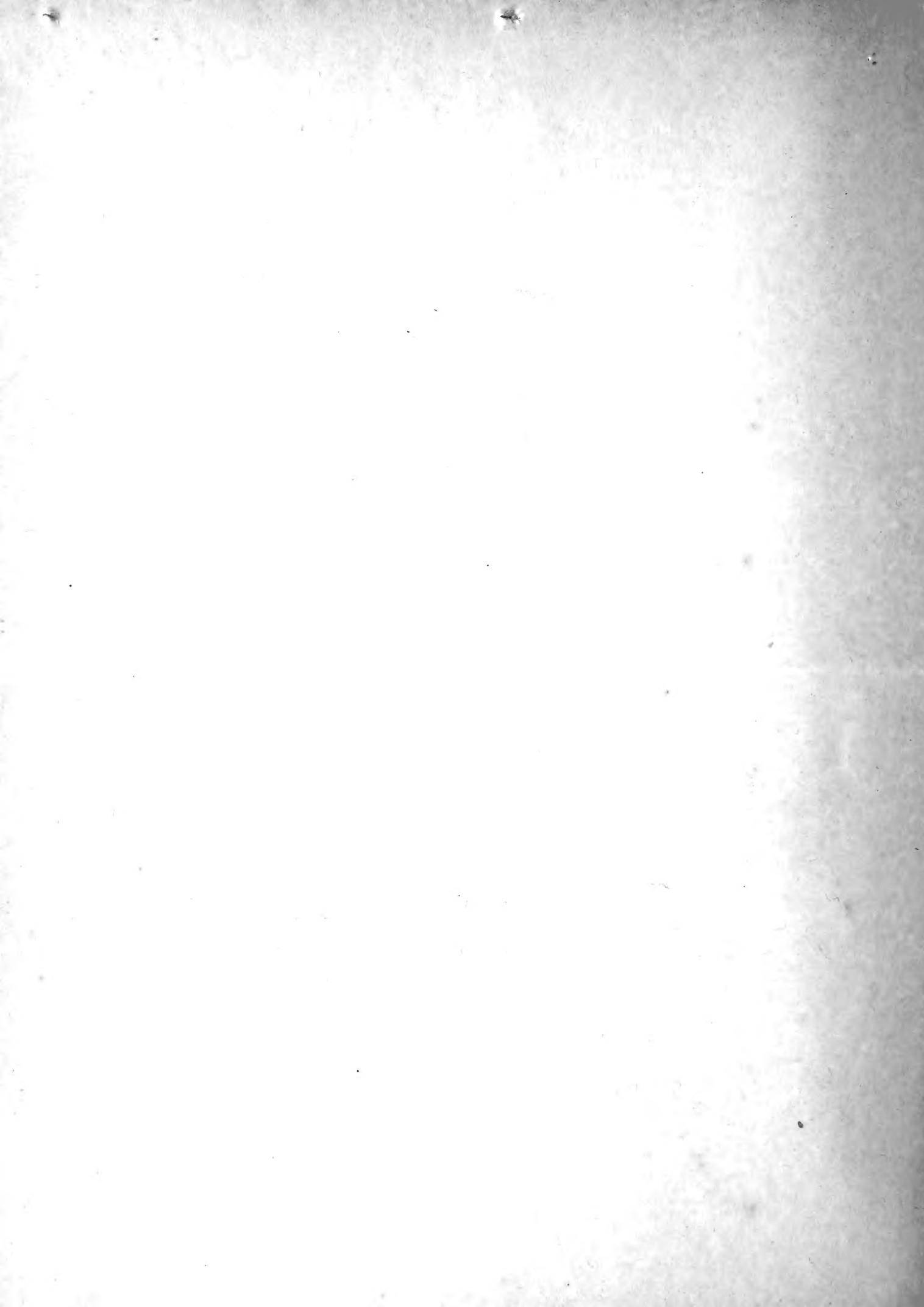
NEWS-Letter  
OF  
THE  
OFFICE OF CEREAL AND FORAGE INSECT  
INVESTIGATIONS.

Volume I,

No. 4,

July 1,

1913.



July 1, 1913.

As stated in the first, or April number of the News-Letter, its object is to bring the continually increasing number of people engaged in agricultural pursuits to direct investigations into closer touch with the author, who will so keep the individual informed, in a general way, of what is being done by the combined force. This number is numbered one, and the aim of the News-Letter is to make it a monthly publication, for it is upon this that the author bases his writing out of so many diverse investigations as were largely made.

In the beginning applied entomology consisted merely in the treatment of garden plants with soap, ashes, lime, or perhaps white hellebore, according wholly to the gardener. The spread of the Colorado potato beetle eastward from the West probably did much to stimulate interest in the application of Paris green, and lime sulphite, but still this was confined largely to the amateur and gardener. As the grower of grains found little relief, and the people suffered no relief whatever. Small losses in cotton due to cotton boll weevils brought the cotton men of the South brought in the need for the preparation and application of kerosene and lime, and the growing of grains and grasses found no relief. In fact, it was taken the spraying of trees and shrubs, the cutting of vines, up to almost new era for the fruit grower, and the ordinary farmer with his problems of insects and diseases usually uninvolved.

Before the advent of entomological actions and open for some time afterward, when he addressed to the members of University faculties complaints of his troubles of insects and asking relief brought him only a slight consolation. The replies he received in those days for relief were usually couched in terms to which he was unused and much of the text of these replies in a language that he did not understand. Moreover, the replies were usually penned by men who had little or no practical knowledge of agriculture, and thus there grew up between the two not only a certain old scoring broad but in many cases an absolutely antagonistic feeling on the part of each for the other.

Perhaps nothing better illustrates the changed condition and rapid growth of agriculture as a science than the immense strides made by economic entomology as applied over and throughout the broad acres of the ordinary farmer. At the present time, instead of receiving a stereotyped reply to his applications for relief, when he applies as an individual, or for his neighborhood, to the Department of Agriculture, either directly, or, as is becoming every day more and more frequent, through his Representative in Congress, he is very often surprised when, within two or three days after the receipt of his complaint, there appears in his neighbor-



hood a young man who, in most cases, has grown up a farmer's son on the farm, and, besides this, has had a thorough university training, and, perhaps, is further equipped by having been engaged in the investigation of insects over a wide range of country, including perhaps no small number of the United States. Instead of receiving a letter which to him might, perhaps, so far as practical aid is concerned, have been written in a foreign language, he finds that his visitor can go about over his and his neighbors' farms with him and with a clear understanding of the crops cultivated can point out the evils of insects and tell them in what manner they might take advice of their injuries and save their money. He will tell him of damage that, though he may have spent a large sum in learning, neither the farmer nor his neighbors have ever yet been able to observe. His caller not only fits into their farm life and speaks his language in the language of the farmer, but is able to explain, in a perfectly natural and intelligible way, much of what he has heretofore been a mystery. The young man goes on to him wherein their farm methods have, in many cases, been primarily responsible for their previously succeeded losses by insect attack. It does not greatly matter on what State the farm is located, if his locality is not too inaccessible and the mission is of more than local importance any of the men located at the Bureau's different field stations can be wired instructions how to send them to his relief. In this way entomology as applied to the broad acres of the farm has within the last twenty-five years become completely revolutionized. This means much to the grower of grains and forage crops and to the stock breeder. Moreover, it means almost equally as much to the banker, the manufacturer, and the merchant, all of whom are called to recognize the fact.

On July 1, 1904, the writer was the sole member of the section, Messrs. Geo. E. Reeves and W. J. Phillips being appointed a few months later, and the expenditures for the fiscal year 1904-1905 were some \$6,000.

TECHNICAL 1903-1904,  
PERSONNEL OF THE DIVISION OF GRAIN AND  
FORAGE INSECT INVESTIGATIONS.

F. M. Webster (Md.), in charge.

OFFICERS.

W. R. Walton (Pa.),  
Margaret Marshall (Va.),

Hattie M. Wilson (Illn.),  
Mrs. F. Martin (Mass.).

TECHNO-BIOLOGICAL.

A. B. Gahan (Md.),  
J. M. Aldrich (S. Dak.).

J. T. Morell (Mo.),



LAFAYETTE, INDIANA, FIELD STATION.  
W. J. Phillips (Va.), in charge.

J. J. Davis (Ill.), Henry Fox (Pa.),  
A. F. Satterthwait (Pa.).

WELLINGTON, KANSAS, FIELD STATION.  
E. O. G. Kelly (Ky.), in charge.

Harrison E. Smith (Mass.), W. M. Washington (Md.).  
Joseph S. Wade (Mass.).  
CHARLESTON, MISSOURI, SUB-STATION.  
Vernon King (Canada).

BROWNSVILLE, TEXAS, FIELD STATION.  
R. A. McKinley (Minn.), in charge.

Claud L. Scott (Miss.), C. L. Lovall (Iowa).

MANHATTAN, KAN., FIELD STATION.  
C. E. Johnson (Illin.), in charge.

W. H. Larrimer (Ohio).

TEMPE, ARIZ., FIELD STATION.  
R. H. Wilson (Colo.), in charge.

T. Scott Wilson (Kans.), T. E. Weston (Ariz.).

SALT LAKE CITY, UTAH, FIELD STATION.  
Geo. L. Powers (Illin.), in charge.

C. W. Creel (Nev.), E. R. Newlings (Kans.),  
Philip B. Miles (Utah), G. W. Davis (Utah),  
Thomas R. Chamberlain (Utah), Deseret Station (Utah),  
R. J. Kewley (Utah), Mattie Dyer (Utah), stereograph.

CAMP LACE CITY, UTAH, SUB-STATION.  
F. H. Winterhalter (W. H.), in charge.

L. P. Rockwood (Conn.), W. A. Thompson (Canada).  
(in Europe.)



HAGERSTOWN, MD., FIELD STATION.  
J. A. Hyslop (N. J.), in charge.

C. M. Packard (Mass.).

COLUMBIA, S. C., FIELD STATION.  
Philip Luginbill (Ohio), in charge.

GREENWOOD, MISS., FIELD STATION.  
W. R. McConnell (Pa.), in charge.

Edmond H. Gibson (Mich.).

ELK POINT, S. DAK., FIELD STATION.  
G. H. Ainslie (Minn.), in charge.

E. J. Bashe (Iowa).

CLENDALE, CAL., FIELD STATION.  
E. D. Urbain (Colo.), in charge.

ZOTZER, N. HEN., FIELD STATION.  
V. J. Wildermuth (Ohio), in charge.

Donald J. Caffrey (Conn.),  
Guy E. Pitts (Ohio),  
W. F. Schlupp (Ohio),

J. R. Andice (Ariz.),  
F. H. Bates (Colo.),  
Irving A. Crawford (S. Dak.).

#### COLLABORATORS.

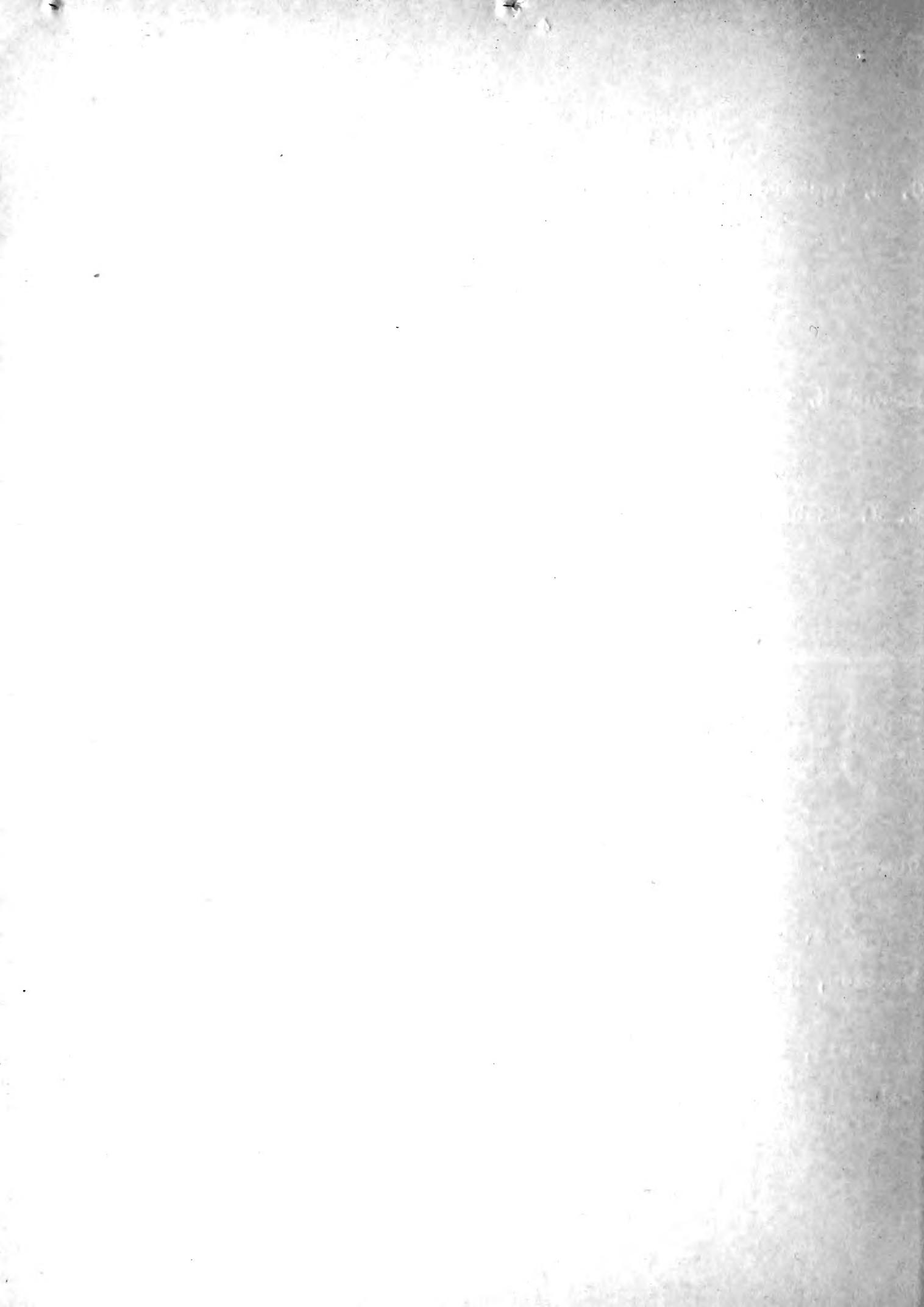
Chas. J. Petty (Wis.).

W. B. Hall (Ohio).

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Geo. G. Ainslie has returned from his investigations of the fall army worm in Florida to resume his duties at his field station, Nashville, Tenn.

Monsieur A. Villeret, Directeur à la Section Entomologique de Paris, has given a 15-page review of E. M. in 110, on *Toxoptera graminum*, in Bulletin de la Société Agricole et de Vulgarisation de la Biologie Agricole, under the title "Le Puceron des Céréales et ses Invasions aux Etats Unis."



H. M. Russell has been transferred from the cereal and forage insect investigations to truck crop investigations.

The range caterpillar investigations have been commenced under somewhat unusual circumstances, having occurred during twenty out of the first twenty-two days, cutting out railway bridges and destroying telegraph and cable wire lines. This, too, is an arid country.

P. H. Timberlake, charged with the development and work of developing and distributing infected seedlings of the alfalfa weevil, reports under date of Jan 16: "We have secured specimens of *Caniusia* "1" food parasite for the alfalfa thuray, showing that this species has successfully passed the winter here in America. We observed two *Caniusia* adults apparently feeding *Phytomyzus* larvae, so that the Canidae has apparently got a good start at that point."

We have received from Mr. Joseph C. Smith, director of the experiment station at St. Louis, Missouri, thirteen specimens of the fulgorid *Dicerotropis* maddisi, which he states that the insect is doing a great deal of damage to the alfalfa locality during the present season. Mr. Smith states that he grew maize at the experiment station last year but did not notice the insects or their ravages. The species was described by the late Doctor Ashmead in 1890 from Jacksonville, Fla., where he found it also damaging corn. Our own records do not show any further injury to corn in this country.

We have received from Mr. W. Moore, lecturer in entomology at the agricultural School at Pietermaritzburg, South Africa, specimens of what Mr. Headon has determined as *Aphis maidis*. Mr. Moore states that it is found upon sorghum, maize, and grasses such as *Panicum*. It appears in January and is abundant for the rest of the summer. It is also abundant in the Orange River Colony and Basutoland. He reprints, with specimens, which were determined by Mr. Headon as *Aphis maidis*, stating that this species is found on *Ischaemus* and is abundant throughout the summer.

The same gentleman has sent us the following parasites, which have been determined by Mr. Headon: One is probably *Aphidius phorodorioides*, reared from the green peach aphid and also from *Toxoptera* and reared from the latter into the green peach aphid, and its offspring reared onto the black peach spines. The offspring of these were bred onto the cabbage aphid, from which the species was again reared. The same parasite was also reared from *Aphis nerii*, from which it was bred onto *Toxoptera*. Mr. Moore also reared *Diaceretus ruficollis* from the cabbage aphid and from what he terms the green peach aphid on cabbages, and using unfertilized females bred it also through this same aphid into and from *Toxoptera*.

